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foundation

Tech Sak

Case Study I

Data Analytics wi

"Real-Time Analysis of Ba

In the digital age, data has become an invaluab
the banking sector. The proposed project, “Re
aims to leverage PowerBI, a leading business in
real-time customer data. This project will ena
customer behavior, preferences, and trends, th
making and enhancing customer satisfaction. Th
respond promptly to changes in custome
opportunities for cross-selling and up-selling, ar
meet customer needs. The project will also co
transformation in the banking sector, promotin
centricity.

Sr. flo.	Table of Contents

CHAPTER 1

IfITRODUCTIOfI

1.1 Problem Statement

In today's competitive banking landscape, u
preferences is crucial for customer retention ar
often face challenges in analyzing customer dat
of data generated. Traditional data analysis met
to provide real-time insights. This lack of re
opportunities for customer engagement, cross
bank's revenue generation and customer satisfa
diversity of customer data, which includes trans
demographic data, pose additional challenges fo

- Trend Analysis: The dashboard will ide
behavior.
- Predictive Analysis: It will use historical dat

1.4 Advantages

- Data-Driven Decisions: Banks can make i
data analysis.
- Improved Customer Engagement: Unders
can help banks engage with their customers
- Increased Revenue: By identifying opportu
banks can increase their revenue.

1.5 Scope

The scope of this project extends to all banking
for decision-making and customer engagement.
incorporate more data sources and advanced a
learning and artificial intelligence, to provide mo

CHAPTER 2

SERVICES AfID TOOLS REQUIRED

2.1 Tools and Software used

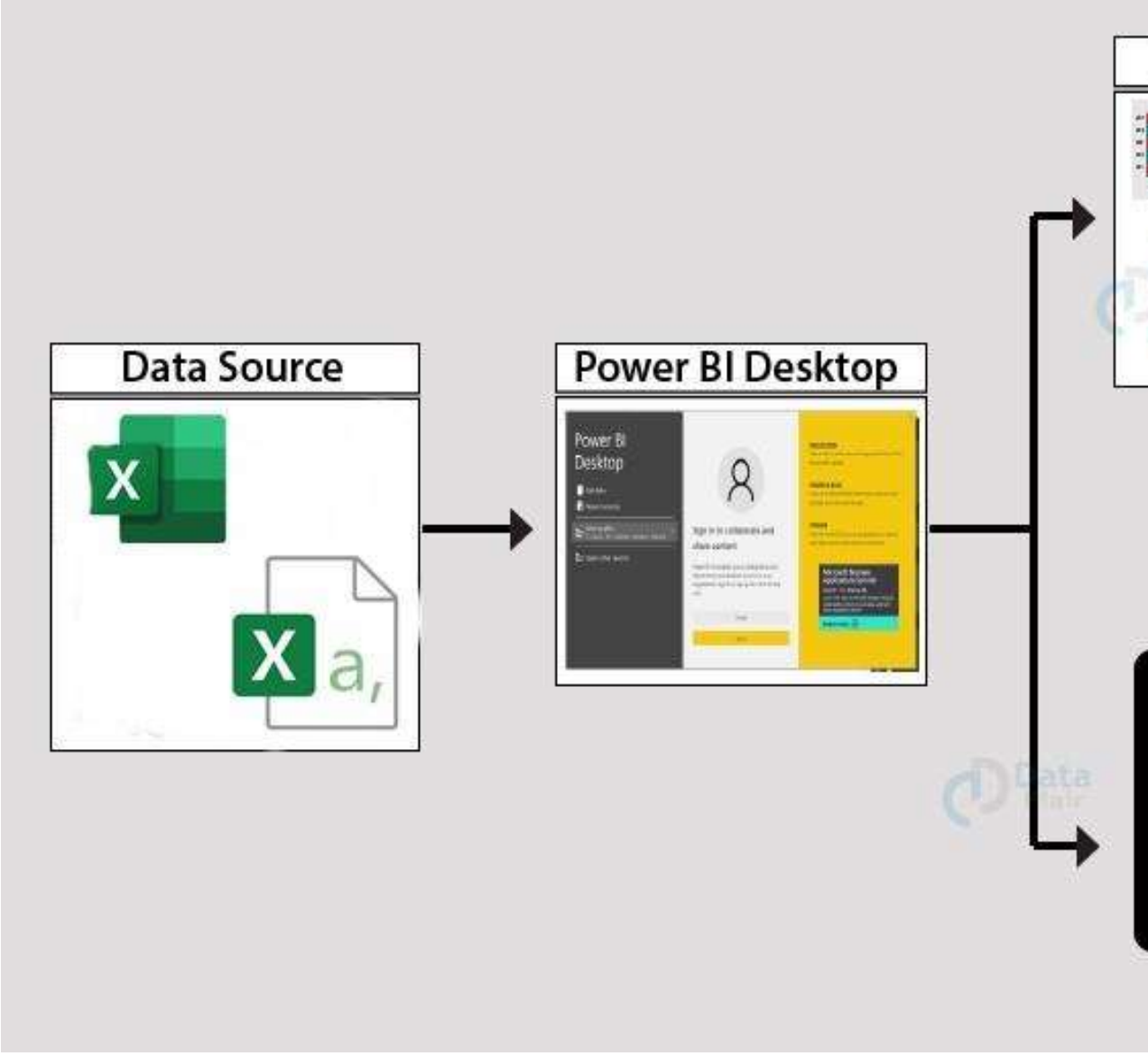
Tools:

- PowerBI: The main tool for this project is P
  interactive dashboards for real-time data visual

- Power Query: This is a data connection tech
  connect, combine, and refine data across a wid

Software Requirements:

- PowerBI Desktop: This is a Windows applica



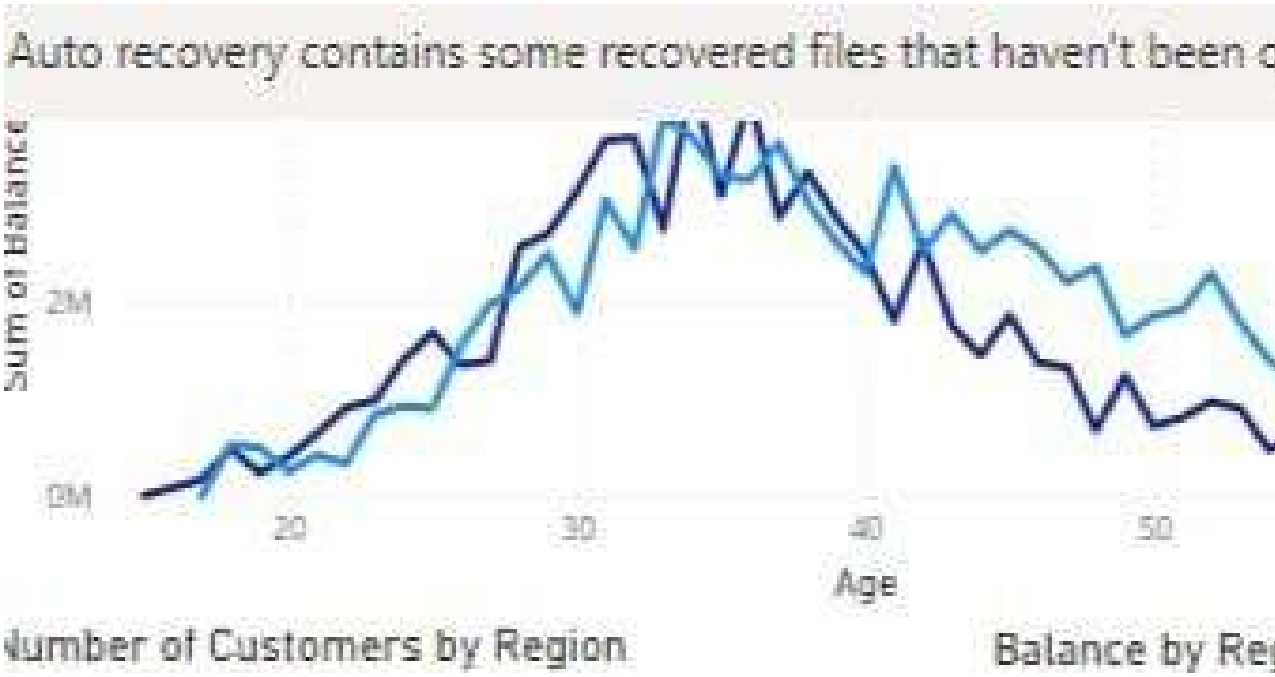
Here’s a high-level architecture for the project:

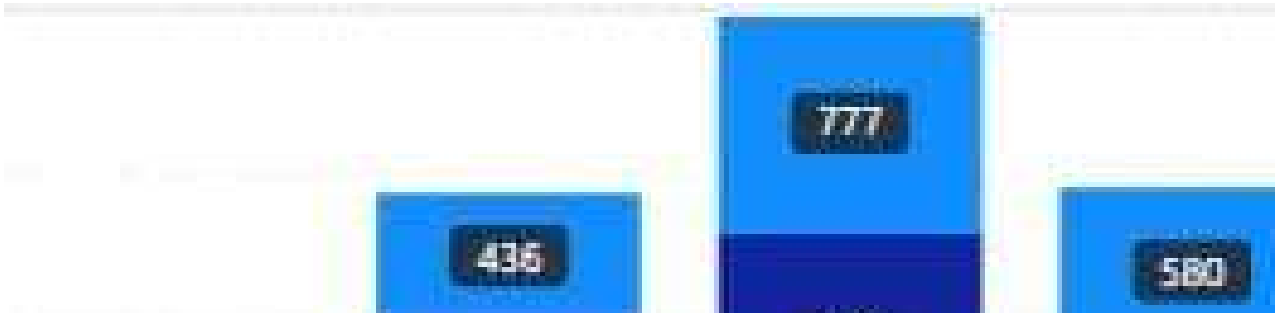
1. Data Collection: Real-time customer data is c
   transactions, customer interactions, etc. This
   Azure Event Hubs or AWS Kinesis.
2. Data Storage: The collected data is stored in
   Database or AWS RDS can be used for this pur

CHAPTER

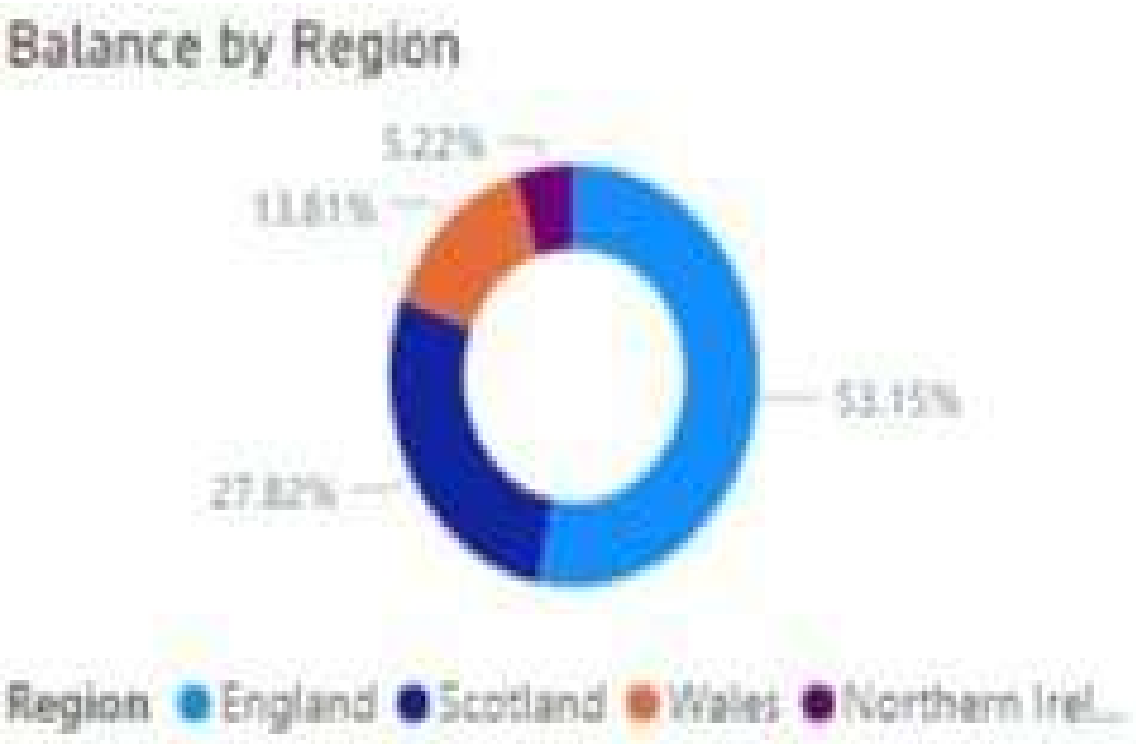
MODELIfIG AfID RE

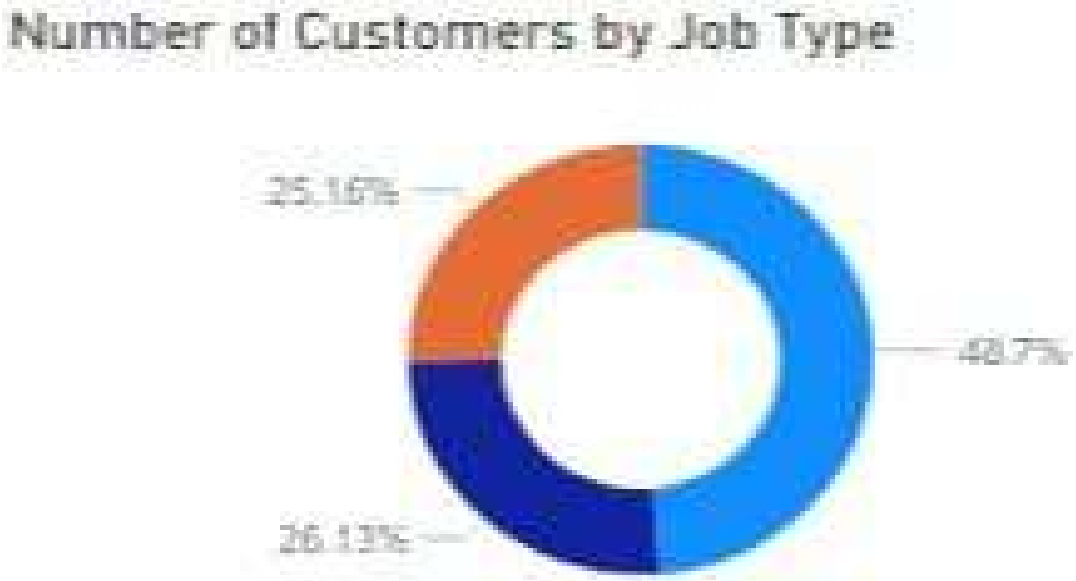
VISUALISATIOfI:



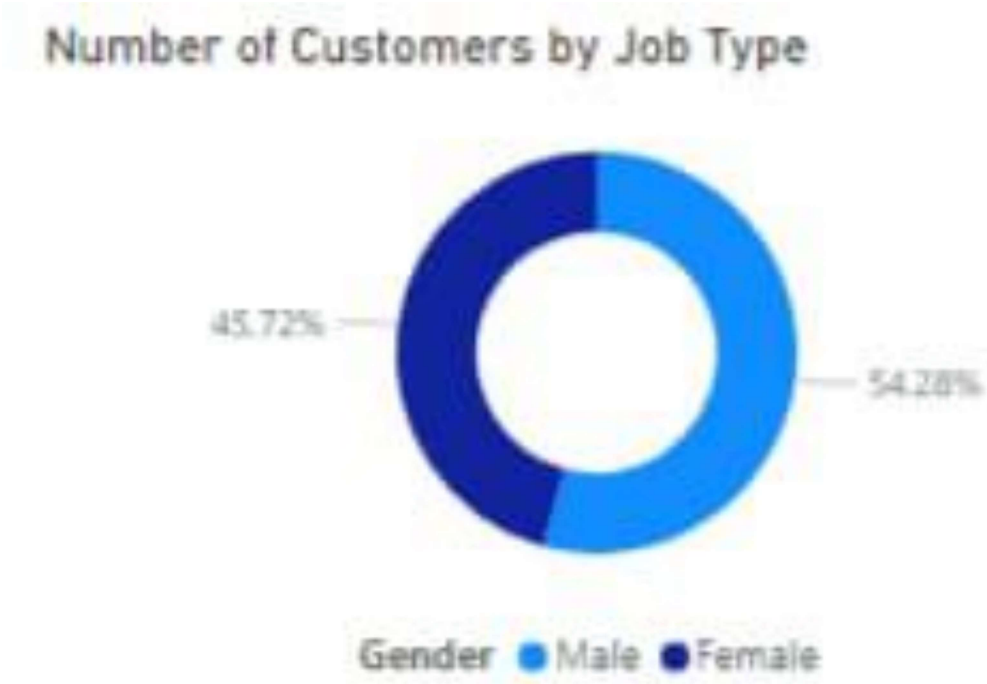


Microsoft


Balance by Region
5.22%
11.61%
53.15%
27.82%
Region
England
Scotland
Wales
Northern Irel...


Number of Customers by Job Type
25.16%
48.7%
26.13%

Microsoft



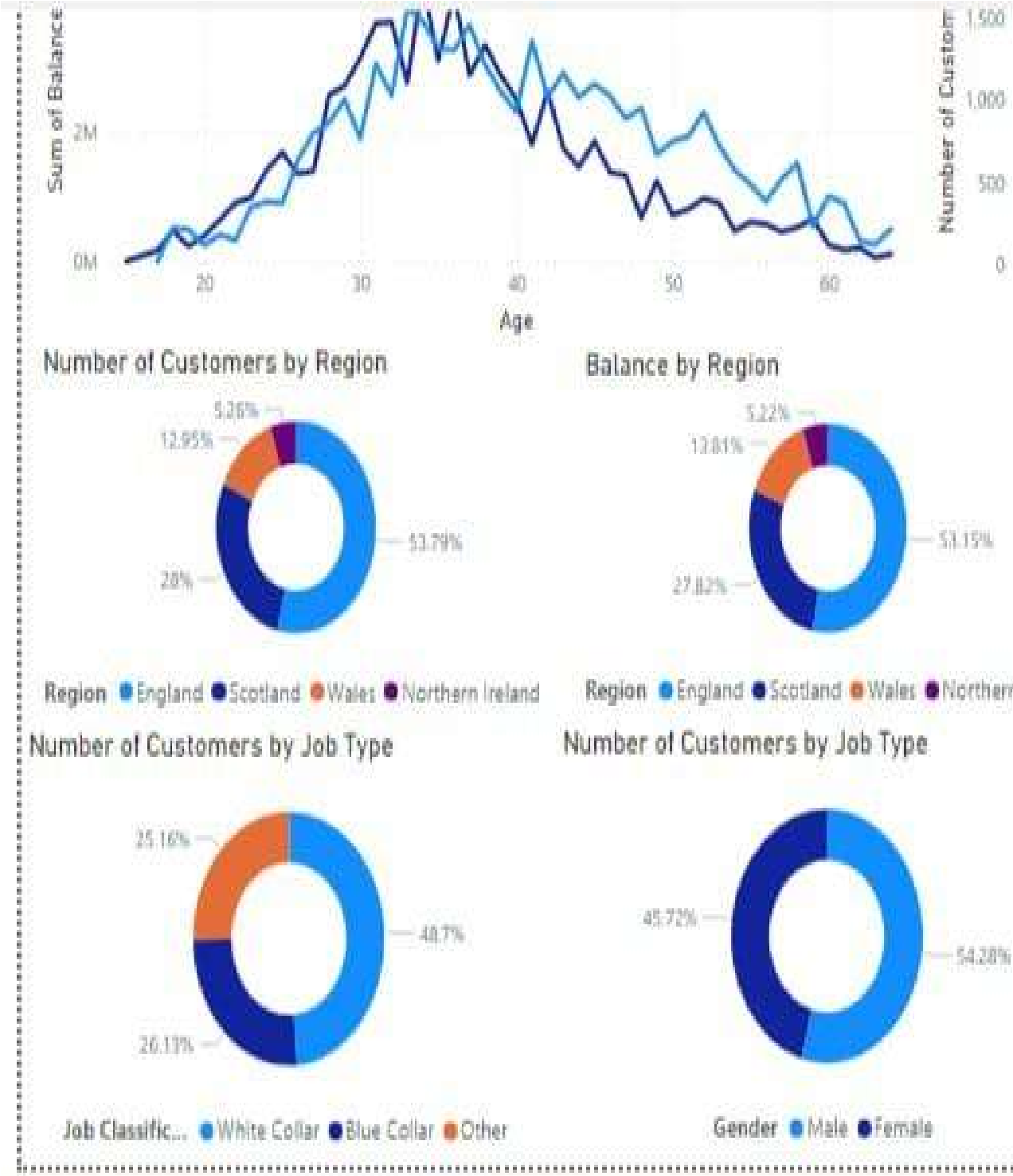
Date Joined

15

e Min Balance by Age

34

Dashboard:


Sum of Balance
2M
0M
20
30
40
50
60
Age
Number of Custom
1,500
1,000
500
0
Number of Customers by Region
5.26%
12.95%
28%
53.79%
Region England Scotland Wales Northern Ireland
Balance by Region
5.22%
13.61%
27.82%
53.35%
Region England Scotland Wales Northern
Number of Customers by Job Type
25.16%
48.7%
26.13%
Job Classific... White Collar Blue Collar Other
Number of Customers by Job Type
45.72%
54.28%
Gender Male Female

FUTURE SCO

The future scope of this project is vast. With
machine learning, PowerBI can be leveraged to p
data. Integrating these predictive analytics into
anticipate customer needs and proactively of
capability to integrate with various data s
incorporating more diverse datasets for a mor
privacy and security become increasingly impo
should focus on implementing robust data gov
the secure handling of sensitive customer data
regulations. Additionally, the project could exp
streams to provide even more timely and rel
transform the way banks interact with their cus

Microsoft

GITHUB LINK

https://github.com/Vijayalakshmipkshmipower BI-